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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,823	10/31/2003	Peter G. Hwang	200206327-1	1286
22879 7590 03/25/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER LIANG, LEONARD S	
			ART UNIT 2853	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/698,823	Applicant(s) HWANG ET AL.	
	Examiner LEONARD S. LIANG	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/31/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 243. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 242. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 2-5 and 14 are objected to because of the following informalities: the claims use the language "to in the", such as in the context of "to in the interior portion" or "to in the link". This is not proper grammar. It will be construed that the claim should state "to the" instead of "to in the". Appropriate correction is required.

Claim 20 is objected to because of the following informalities: the claim states "a slideable portion for allowing a third portion of the of the first media tray and the second media tray to slide with respect to another portion of the of the first media tray and the second media tray." This does not make grammatical sense. It will be construed that the claim should state "a slideable portion for allowing a third portion of one of the first media tray and the second media tray to slide with respect to another portion of the first media tray and the second media tray." Appropriate correction is required.

Claim 40 is objected to because of the following informalities: the claims states "pivoting a lid of an imaging apparatus from the position to the closed position." Based on its dependency of claim 39, it will be construed that the claim should state "pivoting a lid of an imaging apparatus from the open position to the closed position."

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-13, 19, and 30-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Kagami et al (US Pat 6991331).

Kagami et al discloses:

- {claim 1} An imaging apparatus (figure 1); a housing having a cavity (column 4, lines 15-37); a carriage and a carriage rod disposed within the cavity (figure 1, reference 118; column 4, lines 38-51); a cover pivotally attached to the housing (figure 1, reference 107-108; column 5, lines 29-44); a first tray movably attached to the interior portion of the housing (figure 1, reference 115-117); a second tray movably attached to the interior portion of the housing (figure 1, reference 101), wherein the second tray and the first tray are moveable between a stowed position substantially within the cavity, and a deployed position substantially outside the cavity (figures 1 and 3)
- {claim 2} wherein the second tray is attached to the interior portion of the housing with a hinge (figure 6; hinge between references 101 and 117)
- {claim 3} wherein the first tray is attached to the interior portion of the housing with a hinge (figure 6; hinge between references 101 and 117)

- {claim 6} wherein the second tray is positioned near the first tray when the first tray and the second tray are in the deployed position (figure 1, reference 101, 115-117)
- {claim 7} wherein the first tray is positioned over the second tray when the second tray and the first tray are in the deployed position (figure 1, reference 101, 115-117)
- {claim 8} wherein one of the second tray and the first tray is positioned above the other of the second tray and the first tray when the second tray and the first tray are in the deployed position (figure 1, reference 101, 115-117)
- {claim 9} wherein the second tray and the first tray are positioned substantially directly over each other (figure 1, reference 101, 115-117)
- {claim 10} wherein the cover covers the interior portion of the housing when the second tray and the first tray are in the stowed position (figure 3, reference 108)
- {claim 11} wherein the cover is movable between an open position and a closed position when the second tray and the first tray are in the deployed position (column 5, lines 29-44)
- {claim 12} wherein the cover is movable between an open position and a closed position when the second tray and the first tray are in the stowed position (column 5, lines 29-44)
- {claim 13} wherein the housing includes a first side and a second side, wherein the second tray and the first tray are both positioned on one of the first side or the

second side when the second tray and the first tray are in the deployed position (figure 1, reference 101, 115-117)

- {claim 19} An imaging apparatus (figure 1); a first media holding tray (figure 1, reference 117); a second media holding tray (figure 1, reference 101); a housing having a interior cavity portion therein (figure 1, reference 118; column 5, lines 29-44); a print engine disposed in the interior cavity (figure 1, reference 118); means for allowing movement of the first media tray and the second media tray between a deployed position where at least a portion of the first media tray and the second media tray are positioned outside the interior cavity, and a stowed position where the first media tray and the second media tray are positioned within the interior cavity of the housing (figures 1-3)
- {claim 30} An imaging apparatus (figures 1-3); a carriage disposed within an interior cavity of the imaging apparatus and movable through a length of travel within the interior cavity of the imaging apparatus (figure 1, reference 118; column 4, lines 38-43); a carriage swept volume, wherein the swept volume is the profile of the carriage extended along the length of the carriage rod a distance equal to the length of travel of the carriage (figure 1, reference 118; column 4, lines 38-43); a media tray being at least partially disposed within the carriage swept volume (figures 1 and 3, reference 101)
- {claim 31} wherein the media tray has a portion forming an exterior surface of the housing when in a stowed position (figures 1 and 3, reference 101)

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- {claim 32} wherein the media tray is disposed within the interior cavity when in a stowed position (figure 1, reference 101, 115-117; figure 3, reference 101)
- {claim 33} further comprising a cover pivotally attached to the housing capable of substantially covering the interior cavity (figure 1, reference 107-108)
- {claim 34} An imaging apparatus (figures 1-3); a housing having an interior cavity (column 4, lines 15-37); a print engine disposed within the interior cavity (figure 1, reference 118); a carriage disposed within the interior cavity and movable through a length of travel within the interior cavity; a carriage swept volume, wherein the carriage swept volume is the profile of the carriage extended along the length of the carriage rod a distance equal to the length of travel of the carriage (figure 1, reference 118; column 4, lines 38-43); a media tray being at least partially disposed within the interior cavity and outside the carriage swept volume when in a stowed position (figure 3, reference 101)
- {claim 35} further comprising a cover pivotally attached to the housing capable of substantially covering the interior cavity (figure 1, reference 107-108)
- {claim 36} wherein the media tray has at least a portion disposed within the interior cavity of the housing and wherein the media tray also has a portion positioned between the swept volume and the cover when in a stowed position (figures 1 and 3, reference 101)
- {claim 37} wherein the media tray is disposed within the interior cavity when in a stowed position (figures 1 and 3, reference 101)

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- {claim 38} wherein the media tray has a portion forming an exterior surface of the housing when in a stowed position (figures 1 and 3, reference 101)
- {claim 39} A method (figures 1-3); pivoting a lid of an imaging apparatus from a closed position to an open position to increase access to a media tray (figures 1-3, references 107-108; column 5, lines 29-44); rotating the media tray from a stowed position to a deployed position (figures 1 and 3, references 115-117)
- {claim 40} pivoting a lid of an imaging apparatus from the open position to the closed position while the media tray is in the deployed position (column 5, lines 29-44)
- {claim 41} further comprising operating the imaging apparatus with the lid in the closed position and the media tray is in the deployed position (figure 1)
- {claim 42} wherein operating the imaging apparatus with the lid in the closed position and the media tray is in the deployed position includes moving media onto the media tray (figure 1, references 115-117)
- {claim 43} wherein operating the imaging apparatus with the lid in the closed position and the media tray is in the deployed position includes removing media from the media tray (figure 1, references 115-117)

Claims 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Katsuyama (US Pat 6848685).

Katsuyama discloses:

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- {claim 15} An imaging apparatus (figures 1-3); a housing having an interior portion (figures 2-3); a link pivotally attached to the interior portion of the housing (figure 3, references 24-25); a media tray pivotally attached to the link, the media tray movable between a stowed position within the interior portion of the housing and a deployed position outside the housing (figures 1-3, reference 23)
- {claim 16} wherein the housing further comprises a lid for substantially covering the interior portion of the housing, the lid movable between an open position and a closed position when the media tray is in the deployed position (figures 1-3, reference 20)
- {claim 17} wherein the housing further comprises a lid for substantially covering the interior portion of the housing, the lid movable between an open position and a closed position when the media tray is in the stowed position (figures 1-3, reference 20)
- {claim 18} wherein the interior portion of the media tray has an opening therein for allowing access to a paper path, the media tray stowable within the opening for allowing access to the paper path when in the stowed position (figure 3, references 14-15)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 14, and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagami et al (US Pat 6991331) in view of Egashira et al (US Pat 5567068).

Kagami et al discloses:

- {claims 4-5 and 14} an imaging apparatus (as applied to claim 1 above)
- {claim 14} the second tray or first tray further comprises a slidably engaged extension member (figure 1, reference 116)
- {claim 20} an imaging apparatus (as applied to claim 19 above); wherein means for allowing movement of the first media tray and the second media tray further includes on at least one of the first media tray and the second media tray a first hinge positioned near one end of the at least one of the first media tray and the second media tray and attached to interior cavity of the housing (figure 6; hinge between references 101 and 117); a slideable portion for allowing a third portion of one of the first media tray and the second media tray to slide with respect to another portion of the first media tray and the second media tray (figure 1, reference 116)
- {claim 22} A method for moving a first media tray and a second media tray from a stowed position to a deployed position (figures 1-3); opening a lid that covers at least an interior cavity in a housing (figure 1); rotating a first media tray pivotally connected with the interior of the housing from a stowed position substantially within the cavity of the housing to a deployed position where the first media tray

is substantially outside the cavity of the housing (figures 1-3, reference 101);

sliding a third portion of the second media tray with respect to the second portion of the second media tray (figure 1, reference 115)

- {claim 23} wherein the first media tray is placed below the second media tray, the method further comprises presenting media in the second media tray such that the media substantially covers the first media tray and the second media tray (figure 1, reference 101)
- {claim 24} further comprising positioning a paper stop near the end of the second media tray (figure 1, reference 115b)
- {claim 26} A media tray for a printer comprising: a first portion having a first end and a second end, the first portion having a first hinge portion at the first end (figure 1, reference 117; figure 6); a second portion having a first end and a second end (figure 1, reference 116); a third portion having a first end and a second end (figure 1, reference 115)
- {claim 27} wherein the third portion of the media tray is a media stop positioned at one end of the media tray (figure 1, reference 115b)
- {claim 28} further comprising a fourth portion that slides with respect to the third portion of the media tray (figure 1, reference 115)
- {claim 29} wherein the first portion, second portion and the fourth portion of the media tray are sized to accommodate a full-sized sheet of media (column 5, lines 22-28)

Kagami et al differs from the claimed invention in that it does not disclose:

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- {claim 4} wherein the second tray is attached to the interior portion of the housing with a first hinge, and the first tray is attached to the interior portion of the housing with a second hinge
- {claim 5} further comprising a link pivotally attached to the interior portion of the housing with a third hinge, wherein one of the first tray or the second tray is attached to the interior portion of the housing with a first hinge, and the other of the first tray or the second tray is attached to the link with a second hinge
- {claim 14} further comprising a link pivotally attached to the interior portion of the housing with a third hinge, wherein one of the second tray or the output is attached to the interior portion of the housing with a first hinge, and the other of the second tray or the first tray is attached to the link with a second hinge
- {claim 20} a second hinge for allowing a first portion of at least one of the first media tray and the second media tray to fold with respect to a second portion of the at least one of the first media tray and the second media tray
- {claim 21} wherein means for allowing movement of the first media tray and the second media tray further includes a third hinge positioned near one end of the other of the at least one of the first media tray and the second media tray and attached to interior cavity of the housing
- {claim 22} rotating a second media tray pivotally connected with the interior of the housing from a stowed position substantially within the cavity of the housing to a deployed position where the second media tray is substantially outside the cavity of the housing; rotating a first portion of the second media tray with

respect to a second portion of the second media tray, wherein the second portion of the media tray is rotatably attached to the interior cavity of the housing near one end of the second portion and wherein the second portion is rotatably attached to the first portion of the second media tray at the other end of the second portion

- {claim 25} wherein positioning a paper stop near the end of the second media tray includes rotating a fourth portion of the second media tray with respect to a third portion of the second media tray
- {claim 26} a second hinge portion at the second end; a third hinge portion at the first end of the second portion, the third hinge portion and the second hinge portion forming a hinge; and a fourth hinge portion at the second end of the second portion; and a fifth hinge portion at the first end, the fifth hinge portion and the fourth hinge portion forming a hinge (figure 1, reference 115)

Kagami et al basically differs from the present invention in two main respects. First, Kagami et al discloses that the first and second trays are connected at a single hinge (figure 6), as opposed to being individually rotatably connected to a hinge.

Egashira et al discloses first tray 31 and second tray 32 each rotatably connected to its own hinge.

The other main difference between Kagami et al and the present invention is that in Kagami et al, the multiple portions of the media tray slide into each other to retract into the printer as opposed to being connected by hinge portions that rotate onto each other.

However, it is well-known in the art for media trays to contain multiple segmented portions. It is also well known that these portions can slide into each other (as shown in Kagami et al) or fold onto each other (as seen in Egashira et al by the portion above reference 36 in figure 2A), which naturally suggests hinges between the portions.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Egashira et al into the invention of Kagami et al. The motivation for the skilled artisan in doing so is to gain the benefit of flexibility and ease in retreating media tray segments into the printer body. The combination naturally suggests:

- {claim 4} wherein the second tray is attached to the interior portion of the housing with a first hinge, and the first tray is attached to the interior portion of the housing with a second hinge
- {claim 5} further comprising a link pivotally attached to the interior portion of the housing with a third hinge, wherein one of the first tray or the second tray is attached to the interior portion of the housing with a first hinge, and the other of the first tray or the second tray is attached to the link with a second hinge
- {claim 14} further comprising a link pivotally attached to the interior portion of the housing with a third hinge, wherein one of the second tray or the output is attached to the interior portion of the housing with a first hinge, and the other of the second tray or the first tray is attached to the link with a second hinge
- {claim 20} a second hinge for allowing a first portion of at least one of the first media tray and the second media tray to fold with respect to a second portion of the at least one of the first media tray and the second media tray

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- {claim 21} wherein means for allowing movement of the first media tray and the second media tray further includes a third hinge positioned near one end of the other of the at least one of the first media tray and the second media tray and attached to interior cavity of the housing
- {claim 22} rotating a second media tray pivotally connected with the interior of the housing from a stowed position substantially within the cavity of the housing to a deployed position where the second media tray is substantially outside the cavity of the housing; rotating a first portion of the second media tray with respect to a second portion of the second media tray, wherein the second portion of the media tray is rotatably attached to the interior cavity of the housing near one end of the second portion and wherein the second portion is rotatably attached to the first portion of the second media tray at the other end of the second portion
- {claim 25} wherein positioning a paper stop near the end of the second media tray includes rotating a fourth portion of the second media tray with respect to a third portion of the second media tray
- {claim 26} a second hinge portion at the second end; a third hinge portion at the first end of the second portion, the third hinge portion and the second hinge portion forming a hinge; and a fourth hinge portion at the second end of the second portion; and a fifth hinge portion at the first end, the fifth hinge portion and the fourth hinge portion forming a hinge (figure 1, reference 115)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cheng (US Pat 7258334) discloses a paper tray mechanism.

Scarton et al (US Pat 6152630) discloses a printer with two working positions.

Abe et al (US Pat 6582139) discloses a discharged sheet stacker of recording apparatus and recording apparatus provided with discharged sheet stacker.

Hwang (US Pat 7029113) discloses a tray-access door device and method.

Kelly (US Pat 4808021) discloses a method and apparatus for storing accessories inside a printing device.

Musso et al (US Pat 5523848) discloses an ink jet printing device and plain paper facsimile apparatus using the same.

Kobayashi et al (US Pat D468765) discloses a printer.

Samii (US Pat 5657132) discloses a safety interlock switch having combined functions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD S. LIANG whose telephone number is (571)272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

03/13/08

LSL

/Stephen Meier/

Supervisory Patent Examiner, Art Unit 2853